## THE LEARNING CIRCLE

by Loren Woerpel, Noc Bay Trading Company

## **FLAT FAN**

The flat fan is made to look like the tail of the bird, an Eagle, Hawk or Turkey. The feathers, rights and lefts with a center feather, need to be mounted into the handle in the same order as they might be in a tail.

The outside feathers are thinner on their outside edge than on their inside edge. The second feathers in are usually closer to the same in width on both sides. The outside feathers are underneath the next ones inside, and so forth.

The following are general directions on the construction of a five feather flat fan. Individual desires should dictate the finishing decorations on your fan.

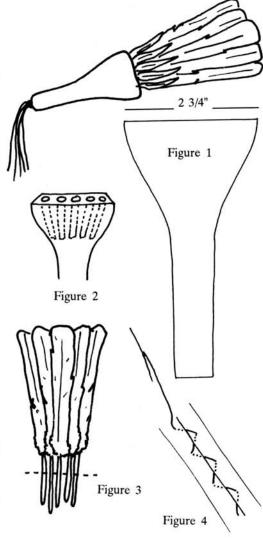
The handle is cut from a piece of 3/4 inch wide clear pine. Cut out the shape as shown in Figure 1.

Drill five holes evenly spaced in the top of the handle using a 9/32 inch diameter bit. The holes are drilled about 1 inch deep and the outside ones slant inward, the next ones slanting slightly and the center one is straight. See Figure 2. A single hole is drilled in the bottom of the handle if a bundle of fringe is to be added as decoration.

Using a carving knife or a sharp pen knife, smooth down the edges of the handle blank. Finish it by sanding with a piece of 100 grit sandpaper.

To prepare the feathers, lay them out into position with the tips all even. As in Figure 3, mark the bottoms of the quills for cutting about 1 inch below the blade of the feather.

Test out the fit by inserting the feathers in the holes of the handle. Put the two outside feathers in first, then the next two and finally the center one. You may have to shorten a quill base to even up the tips of the feathers. Test the feather movement sideways to be sure there is enough room in the holes to position them with the right spacing. If you need more room in one hole remove the feathers and drill out the hole a little more in the direction you need to move the feather.



An alternative for decorating the handle is to darken the wood finish by burning it with a propane torch or a candle flame. Wipe the surface with a cloth and polish with a furniture wax or melted bees wax. Decorations can now be cut into the handle as well.

Some scotch tape and a pile of old rags are useful in the gluing operation. On a table top, lay the rags in a neat pile and bunch them up into a form so they will support the length and curve of your fan. The handle needs to be lower than the feathers so the glue won't run out of the holes.

With the feathers out of the handle holes again, fill them about half with wood glue. Holding the handle with the holes upright, insert the feathers again into the holes in the same order as noted above. Patiently adjust the spacing until you have the right look.

Using a piece of Scotch tape, lightly stick the tape across the feathers about half way up to hold them in place. Carefully lay the fan on the bed of rags and again adjust the feathers in relation to the handle. Another rag over the feathers will hold them in place until the glue is dry. Let dry for 4-6 hours.

An alternative at this point is to glue fluffs onto the underside of the fan where the feathers enter the fan handle. You can also glue some decorative feathers on the top sides. Some use the tops of natural or colored hackle feathers, or pheasant body plumage.

The handle can be covered with leather if you use this option. If you plan to have beadwork on the handle, you will need to cover the handle with leather for a sewing base.

Trace the shape of the handle on a piece of leather and cut out two half covers. Be sure to allow for the thickness of the handle. Lightly spread some glue on the top and bottom surface of the handle. Smooth the leather into place and sew up the edge seams using a glovers needle and size F Nymo thread. The best stitch is the baseball stitch shown in Figure 4.

Cut some leather fringe. Bundle them together and wrap with thread. Put a drop of glue into the bottom hole of the handle and force the fringe bundle in and let dry. An alternative is to make twisted fringe for this. A LEARNING CIRCLE flyer is available for making twisted fringe.

For instructions on wrap beading the handle, see our book BEADWORKING WITH TODAY'S MATERIALS.

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